NERRS SCIENCE COLLABORATIVE

PROJECTS FUNDED IN 2012

Making Science Part of the Solution

The National Estuarine Research Reserve System (NERRS) Science Collaborative puts Reserve-based science to work for coastal communities coping with the impacts of land use change, stormwater, nonpoint source pollution, and habitat degradation, all in the context of climate change. The program operates by a cooperative agreement between the University of New Hampshire (UNH) and the National Oceanic and Atmospheric Administration (NOAA). We have a threefold approach to connecting science to decision making:

—Our requests for proposals fund projects that incorporate collaboration and applied science to address coastal management problems identified as priorities for Reserves and their communities.

—Our transfer program is dedicated to sharing the science we fund throughout the NERRS and the communities they serve.

—TIDES (Training for the Integration of Decision Making and Ecosystem Science) is a non-thesis Master's degree program, providing the skills needed to link science to coastal decision making. TIDES is hosted by UNH; the Science Collaborative supports two, fully funded TIDES fellowships each year.

Why this Program?

Few coastal management problems are purely "environmental" in nature. They impact economies, businesses, infrastructure, property, and human health and well-being. Science may be essential to addressing a problem, but when it does not account for the issue's economic, regulatory, and social aspects, it often gets ignored.

For science to be applied to coastal management problems, the people who need to use the science must be involved in its generation. The projects we fund bring intended users of science into the research process so their perspective can inform problem definition, research design and implementation, and ultimately, the practical application of projects' results to a particular problem. This is what we mean by *collaboration*—a process to ensure that the good science that happens in and around Reserves gets put to good use.

nerrs.noaa.gov/ScienceCollaborative.aspx

Climate Change Education

The Massachusetts Institute of Technology is working with four NERR sites and the Consensus Building Institute to engage four New England towns in testing the use of role-play simulations to help communities explore ways to enhance resilience against the potential impacts of climate change. (Funding: $637,023)

For more information contact Danya Rumore: drumore@mit.edu, 208.659.1415.

Coastal Low Impact Development

The Coastal Training Programs at the ACE Basin and North Inlet-Winyah Bay NERRs are using Collaborative Learning to advance Low Impact Development tools and guidance for stormwater management in coastal South Carolina. (Funding: $329,943)

For more information contact Blaik Keppler: kepplerb@dnr.sc.gov, 843.953.9024

Wetland Restoration in California

A team led by the Tijuana River NERR is creating a management framework for wetland conservation and recovery in southern California that will integrate data and community perspectives from the past, present, and future. (Funding: $599,972)

For more information contact Kristen Goodrich: kgoodrich@trnerr.org, 619.575.3613 x314

Climate Change Planning

A multi-disciplinary team from the Great Bay NERR and the University of New Hampshire is using the principles of participatory action research to help a N.H. town to design a climate change adaptation plan. (Funding: $683,472)

For more information contact Paul Kirshen: paul.kirshen@unh.edu, 603.862.4637

National Estuarine Research Reserve System Science Collaborative

University of New Hampshire

Restoring Oyster Reef-based Living Shorelines

An interdisciplinary team led by South Carolina's ACE Basin National Estuarine Research Reserve (NERR) is working to reduce coastal erosion, build community resiliency, improve water quality, and protect habitats through the creation of oyster reef-based living shorelines. The team will use Collaborative Learning to engage stakeholders in identifying priority sites, constructing reefs, and monitoring restoration success. (Funding: $585,622)

For more information contact John Leffler: lefflerj@dnr.sc.gov, 843.953.3903.

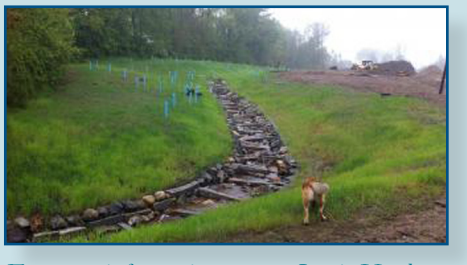
Restoring Marsh Resiliency in Coastal Maryland

Investigators from the University of Maryland are partnering with the Chesapeake Bay NERR, Maryland, to increase the resilience of coastal marshland and communities in the face of sea level rise in the Deal Island Peninsula. This team will use Collaborative Learning to convene progressive workshops where a wide range of stakeholders can help shape and guide research and outreach activities. (Funding: $598,645)

For more information contact Brian Needleman: bneed@umd.edu, 301.405.8227.

Supporting Green Infrastructure in New Hampshire

Researchers from the University of New Hampshire and the Great Bay NERR are creating a framework of resources to build resilience and municipal capacity in coastal watershed communities. The team will also demonstrate the economic benefits resulting from an increased reliance on Green Infrastructure.
(Funding: $589,838)



For more information contact Jamie Houle: james.houle@unh.edu, 603.767.7091.

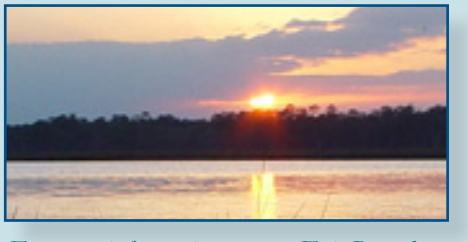
Partnerships for Coastal Oregon Watersheds

A team led by the South Slough NERR is developing tools to evaluate socioeconomic and environmental change for use in long-term community planning. Building on the Partnership for Coastal Watersheds program in the Coos estuary, the team will develop an action plan with biophysical systems indicators to evaluate long-term change for priority issues. (Funding: $549,826)

For more information contact Craig Cornu: craig.cornu@state.or.us, 541.888.8270 x301.

Restored Marshes as Filters in Weeks Bay

A team led by the Weeks Bay NERR is devising cost-effective management srategies for reducing run-off pollution through marsh restoration. The team will assess the ability of restored marshes to filter nitrogen under current and future sea level scenarios. Ultimately, they will create a decision support tool to help managers attain runoff reduction targets and identify adaptive strategies to maximize filtration in restored marshes. (Funding: $371,099)



For more information contact Eric Brunden: eric.brunden@dcnr.alabama.gov, 251.928.9792.